

EUROPEAN RESPIRATORY *journal*

FLAGSHIP SCIENTIFIC JOURNAL OF ERS



The effects of conjugated linoleic acid supplementation on the serum levels of Interleukin-6 and Sirtuin-1 in COPD patients

Hassan Ghobadi-Marallu, Somaieh Matin, Ali Nemati, Mehran Mesgari-Abbasi, Saeid Ghorbani, Mohammad Reza Aslani
European Respiratory Journal 2019 54: OA3582; DOI: 10.1183/13993003.congress-2019.OA3582

[Article](#)[Info & Metrics](#)

Abstract

Objective: Chronic obstructive pulmonary disease (COPD) is characterized with systemic inflammation and accelerated inflammaging of the lungs. Some studies have shown that conjugated linoleic acid (CLA) has anti-inflammatory effects. The aim of the present study was to evaluate the effect of CLA supplementation on the serum levels of interleukin (IL)-6 and Sirtuin1 (SIRT1) in patients with COPD.

Method of Study: 82 patients with stable COPD were selected to be studied in a double blind clinical trial. Subjects were randomly assigned to two groups: placebo (n=42) and supplementation (n=40, 3.2 g CLA daily). Forced expiratory volume in one second (FEV1%), BODE index, and the serum levels of IL-6, and SIRT1 were measured at the baseline and also six weeks after the intervention. In addition, the study parameters in the two groups were compared based on the Global Initiative for Chronic Obstructive Lung Disease (GOLD) criteria.

Results: After supplementation with CLA, the serum levels of IL-6 and BODE index significantly decreased ($p < 0.05$ and $p < 0.001$ respectively). In addition, the serum levels of SIRT1 ($p < 0.01$) and FEV1 ($p < 0.001$) significantly increased in the supplementation group. Based on GOLD criteria, the increase in SIRT1 and the decrease in IL-6 serum levels were found to be statistically significant in stages III-IV in the supplementation group ($P < 0.05$ and $P < 0.01$ respectively).

THANK YOU FOR ACCEPTING COOKIES

You can now hide this message or find out more about cookies.

[Hide](#)[More info](#)

Footnotes

Cite this article as: European Respiratory Journal 2019; 54: Suppl. 63, OA3582.

This is an ERS International Congress abstract. No full-text version is available. Further material to accompany this abstract may be available at www.ers-education.org (ERS member access only).

Copyright ©the authors 2019

We recommend

The role of serum IL6 in stable COPD patients

Aleksandar Lilov et al., European Respiratory Journal, 2018

Effects of the long term treatment with Fenspiride upon clinical manifestations of chronic obstructive pulmonary disease

Valentin Calancea et al., European Respiratory Journal, 2018

The influence of statin supplementation on inflammatory markers in patients with chronic obstructive pulmonary disease

Mradul Daga et al., European Respiratory Journal, 2015

Serum heat shock protein levels in patients with chronic obstructive pulmonary disease

Ramazan Ünver et al., European Respiratory Journal, 2014

Three-year follow-up study of inflammatory markers in chronic obstructive pulmonary disease

Renata Ferrari et al., European Respiratory Journal, 2011

The roles of exosomal miRNAs and lncRNAs in lung diseases

Yang Li et al., Signal Transduction and Targeted Therapy, 2019

Fermitin family homolog-2 (FERMT2) is highly expressed in human placental villi and modulates trophoblast invasion

Eiko Kawamura et al., BMC Dev Biol, 2018

Effects of *Bacillus subtilis* on hepatic lipid metabolism and oxidative stress response in grass carp (*Ctenopharyngodon idellus*) fed a high-fat diet

Hui Zhao, Marine Life Science & Technology, 2019

Effects of three positively buoyant dietary supplements on the buoyancy of feces, growth and intestinal health of Tilapia, *Oreochromis niloticus* × *O. aureus*

Yang et al., Aquaculture and Fisheries, 2018

Quantitative Measurement of Cerebrovascular Reactivity by Blood Oxygen Level-Dependent MR Imaging in Patients with Intracranial Stenosis: Preoperative Cerebrovascular Reactivity Predicts the Effect of Extracranial-Intracranial Bypass Surgery

D.M. Mandell, AJNR Am J Neuroradiol, 2011

Powered by **TREND MD**

 [Previous](#)

THANK YOU FOR ACCEPTING COOKIES

You can now hide this message or find out more about cookies.

Hide

More info

-  Email

 Alerts

 Citation Tools
-  Request Permissions

 Share

Jump To

- ☐

 Article
- ☐

 Info & Metrics

THANK YOU FOR ACCEPTING COOKIES

You can now hide this message or find out more about cookies.

- Hide
- More info



 **More in this TOC Section**

 **Related Articles**

No related articles found.

[Google Scholar](#)

Navigate

THANK YOU FOR ACCEPTING COOKIES

You can now hide this message or find out more about cookies.

Hide

More info

[Journal information](#)[Editorial board](#)[Reviewers](#)[CME](#)[Press](#)[Permissions and reprints](#)[Advertising](#)

The European Respiratory Society

[Society home](#)[myERS](#)[Privacy policy](#)[Accessibility](#)

ERS publications

[European Respiratory Journal](#)[ERJ Open Research](#)[European Respiratory Review](#)[Breathe](#)[ERS books online](#)[ERS Bookshop](#)

Help

[Feedback](#)

For authors

[Instructions for authors](#)[Submit a manuscript](#)[ERS author centre](#)

For readers

[Alerts](#)[Subjects](#)[Collections](#)[Podcasts](#)[RSS](#)

Subscriptions

[Accessing the ERS publications](#)

THANK YOU FOR ACCEPTING COOKIES

You can now hide this message or find out more about cookies.

[Hide](#)[More info](#)

European Respiratory Society
442 Glossop Road
Sheffield S10 2PX
United Kingdom
Tel: +44 114 2672860
Email: journals@ersnet.org

ISSN

Print ISSN: 0903-1936
Online ISSN: 1399-3003

Copyright © 2019 by the European Respiratory Society

THANK YOU FOR ACCEPTING COOKIES

You can now hide this message or find out more about cookies.

Hide

More info